



## Neil J. Pedersen, SHA Administrator



## Dear SHA Customers, Partners, and Employees,

I am pleased to present the Fiscal Year 2008 Annual Report on SHA's accomplishments and initiatives. When the year ended on June 30, the Maryland State Highway Administration (SHA) had begun celebration of its 100th anniversary.

Reflecting on the agency's centennial of service makes me consider what is most important to our customers. Is it safety, the environment, ADA compliance, congestion, mobility or customer service? At SHA, we consider all of these issues to be important. We are responsible to the citizens of Maryland for the public funds that are entrusted to us; to our industry partners, and to the Maryland General Assembly. We are ultimately responsible to every community in which we build, manage, and maintain highways.

In FY 2008, the second span of the Woodrow Wilson Bridge opened. The overall project remains on time and on budget, and was honored with the American Society of Civil Engineers' Outstanding Civil Engineering Achievement Award for 2008. The year also marked the start of construction on the first two major Intercounty Connector (ICC) contracts. It, too, remains on schedule and is being efficiently managed within the financing plan that was established specifically for that project.

This year, SHA made a significant commitment to build on its 100-year legacy of customer service by introducing the Customer Care Management System (CCMS). This new system is helping to streamline processing our customer requests while documenting our work performance. We led the launch of the "Choose Safety for Life" campaign, which coordinates a partnership of private and public organizations that seek to work proactively to reduce death and injuries on Maryland's roads for motorists and pedestrians. We also continued to further the goals of Maryland's Strategic Highway Safety Plan by strengthening ties with regional partners, and maintained highway fatalities at an all time low since 2005. We continued to reduce non-recurring, congestion-related delays along what includes some of the busiest traveled regions in the nation.

SHA remains a leader among state agencies. In FY 2008, we participated in a leadership role in negotiations with the Environmental Protection Agency on environmental compliance, and led the Highway Authorization Policy Group of the American Association of State Highway and Transportation Officials (AASHTO).

I am proud to be part of an organization that has dedicated itself to a consistently high level of public service for the last 100 years. I look forward to more successes in the coming fiscal year.

Sincerely,

annual report

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Neil J. Pedersen, SHA Administrator

## **Table of Contents**

# Our Mission, Our Vision, Our Values, Our Goals

## SHA's Mission

Efficiently provide mobility for our customers through a safe, well-maintained and attractive highway system that enhances Maryland's communities, economy and environment.

## SHA's Vision

Providing our customers with a world class highway system.

## SHA's Values

State Highway Administration employees embrace values that complement our vision and mission.

These are grouped into four categories:

We Value Excellence in Our People: SHA employees are energetic, loyal, and supportive of one another. We encourage each other to reach our highest potential and are committed to gaining the skills, knowledge, and training to achieve our goals.

We Value Excellence in Our Work: As a team, we strive to know the needs of our internal and external customers. We fulfill commitments in a timely and accurate manner, using resources responsibly, and observing all legal, moral, and ethical standards.

We Value Excellence in Our Relationships: We value each other's opinions and ideas as well as those of our customers. We earn the respect and trust of our internal and external customers through fairness, honesty, integrity, and open communication. We accept responsibility and are accountable for our performance.

We Value Excellence in Our Work Environment: SHA provides a professional environment that is committed to putting the safety of its people and customers first. We strive to continually improve the workplace by rewarding accomplishments and encouraging employee involvement at all levels of the organization.

## SHA's Goals

- Improve highway safety in Maryland
- Improve mobility for our customers
- Maintain a quality highway system
- Improve the effectiveness of managing our resources and projects
- Develop and maintain Maryland state highways in an environmentally responsible manner
- Provide services and products to our customers that meet or exceed their expectations

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A reference guide for some of the terms used on the following pages:

A/E – Architecture/Engineering

A&G - Administrative and General

AASHTO – American Association of State Highway and Transportation Officials

ADA – Americans with Disabilities Act

APS - Accessible Pedestrian Signal

ARAN - Automatic Road Analyzer

**Centerline Miles** – The length of a road in miles measured along the center of the road

**CHART** – Coordinated Highways Action Response Team

**CCMS** – Customer Care Management System

**CCTV** – Closed Circuit Television

CY – Calendar Year

**DMS** – Dynamic Message Signs

DOT(s) - Department of Transportation

**DUI** – Driving Under the Influence of drugs or alcohol

FHWA – Federal Highway Administration

FY - Fiscal Year

ICC - Intercounty Connector

IT - Information Technology

ITS - Intelligent Transportation Systems

GIS - Geographic Information System

Lane-miles – The mileage from one end of a highway to the other multiplied by the number of lanes

LCAP - Lane Closure and Analysis Program

LED - Light-emitting diode

M/DBE - Minority/Disadvantaged Business Enterprise

MDE - Maryland Department of the Environment

MDOT - Maryland Department of Transportation

MHSO - Maryland Highway Safety Office

Mitigation – To lessen the impact of pollution in communities and on the environment due to highway construction/highway maintenance activities

MOU - Memorandum of Understanding

NHS - National Highway System

NHTSA – National Highway Traffic Safety Administration

**NPDES** – National Pollution Discharge Elimination System

RSA - Roadside Safety Audit

 $\mathbf{SAH}-Sponsor\text{-}A\text{-}Highway$ 

SBR - Small Business Reserve

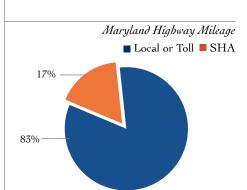
**SHA** – State Highway Administration

SHSP - Strategic Highway Safety Plan

**USDOT** – United States Department of Transportation

VMT – Vehicle Miles Traveled (I.E.: 2 vehicles traveling 2 miles equals 4 VMT)

WWB – Woodrow Wilson Bridge

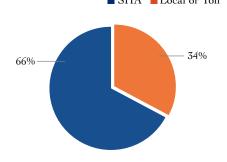


SHA maintains and operates more than 16,800 lane miles of highways in Maryland.



Travel on Maryland Highways (VMT)

■ SHA ■ Local or Toll



- <sup>1</sup> The National Highway System is a federally-designated category of roads important to the nation's economy, defense, and mobility.
- <sup>2</sup> Except specific facilities owned by the Maryland Transportation Authority and Interstate roads in Baltimore City.

## CHAPTER 1 Overview of State Highway Administration

## Major Program Responsibilities An excellent highway system is grue

An excellent highway system is crucial to having a strong economy, maintaining the quality of life of Maryland's citizens and keeping people safe as they travel.

SHA owns, operates and maintains the Interstate, U.S. and Maryland numbered roads that represent the backbone of Maryland's transportation system. This infrastructure forms the majority of Maryland's National Highway System¹ that connects local and county roads to major activity centers and other modes of transportation such as mass transit, the port, airports and railroads.

SHA's highest priority is to improve highway safety on all roads in Maryland. Through implementation of the Strategic Highway Safety Plan, SHA and its partners provide the overall performance targets that guide the progress to that goal. The agency is a key player in leading the development of implementation strategies, and provides the funding to administer statewide educational and public awareness programs.

SHA roads carry 67 percent of traffic in the state.<sup>2</sup> For SHA, this translates to:

- Preserving the quality of 16,857 lane-miles of road and 2,500 bridges;
- Performing critical specialized functions such as design quality control, managing traffic during emergencies and clearing roads during snow and ice storms:
- Performing routine maintenance on roadway features such as pavements, bridges, signs, lights, roadway markings, drainage and litter pick up;
- Working in collaboration with citizens, communities and elected officials
  to deliver high quality projects; this includes the planning, design and
  construction of more than 500 projects from minor ones to improve
  accessibility, to major ones such as the Intercounty Connector and the
  Woodrow Wilson Bridge reconstruction.

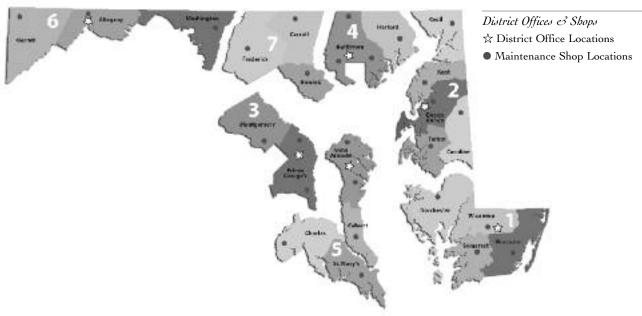
SHA also focuses on environmental stewardship as one of our key performance areas. The range of these initiatives includes:

- dedicated programs that improve water quality within and along SHA facilities;
- environmental protection during project construction;
- enhancement to existing environmental features in addition to required environmental mitigation;
- employee awareness and overall environmental stewardship.

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## **District Offices & Shops**

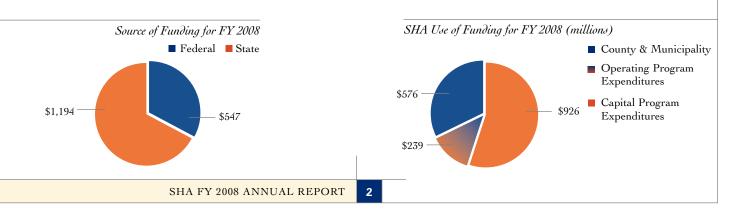
The State Highway Administration (SHA) has approximately 3,200 employees who carry out its mission, and has more than 40 facilities around the state, including seven engineering district offices and 28 maintenance shops.



SHA's headquarters office is in Baltimore City and is home to more than 750 employees, including the Administrator and Deputy Administrators. There are 14 offices at headquarters that provide central administrative, information technology, financial, planning and engineering functions. In addition, SHA's operations offices and the Statewide/Emergency Operations Center are centrally located in Hanover near the BWI Thurgood Marshall Airport. District offices manage all highway and bridge construction contracts; perform maintenance functions such as roadway and equipment repair, snow and ice removal, and roadside management; and are responsible for traffic engineering projects and operations.

## SHA Funding

Financing for SHA activities comes from the State of Maryland's Transportation Trust Fund and from federal transportation funding. The agency uses these funds for everything from planning new roads and bridges to building, maintaining and operating existing roads. In FY 2008, SHA delivered a capital program of more than \$926 million. Additionally, SHA spent more than \$239 million on our operating programs, which include highway safety grants and highway maintenance operations of SHA's 16,857 lane-miles of roadway, and distributed \$576 million to counties and municipalities for use on local systems.



CHAPTER 2 **Highway Safety** 

Goal: Improve highway safety in Maryland

## Highlights of our Accomplishments

# Choose Safety for Life\*

- In CY 2007, fatalities dropped to 615 from 651 in 2006. The number of persons injured also dropped to 51,729.
- SHA continued its proactive safety initiatives as part of the Strategic Highway Safety Plan, including a lead role in the development and launching of the three year safety campaign, "Choose Safety for Life."
- The Maryland Safety belt use rate rose to 93.3 percent, an increase from the 2006 rate.
- SHA Administrator Neil Pedersen chaired a 21 member task force that developed recommendations to combat driving under the influence of drugs and alcohol.

## Comprehensive Approach to Improving Highway Safety

The SHA oversees the implementation of the Maryland Strategic Highway Safety Plan (SHSP) which includes seven emphasis areas and seven sub-emphasis areas. Projects and strategies are ongoing in each emphasis area. The strategies include enforcement, engineering, and education programs in areas such as impaired driving, occupant protection, aggressive driving, speed, intersection safety, young and older driver issues, and roadway departure incidents. SHA provides staff support to the seven statewide task forces covering the aforementioned behavioral program areas.

On November 30, 2007, the second annual Traffic Safety Summit was held to review objectives and strategies within the 7 SHSP emphasis areas. The focus of the Summit was how the most important SHSP strategies would be implemented at the state, regional, county, and city levels with a specific focus on the safety issues of greatest significance to that geographic region.

## **Overview of Highway Safety Results**

Maryland's highway fatality rates generally have declined steadily over the last 30 years. The fatality rate has dropped from 3.2 fatalities per 100 million vehicle miles of travel in CY 1973 to 1.08 in CY 2007; a decline of 66 percent. It remains more than 20 percent lower than the all-time lowest national fatality rate of 1.37 for CY 2007. The reduction is attributable, at least in part, to higher seat belt use, enhancements in highways and their operations, improvements in vehicle safety design and equipment, improvements in emergency medical services, and programs to further upgrade traffic safety public information and education, traffic law enforcement and adjudication, driver monitoring and control, and commercial vehicle operations.

Although the long-term reduction in traffic fatalities over the past 35 years continues, the annual numbers of traffic fatalities fluctuate considerably from one year to the next. Steady progress towards the target of fewer than 550 fatalities per year by the end of CY 2010 remains problematic.

Encouragingly, there are some signs in mid-2008 that extraordinarily high fuel prices might be affecting motor vehicle travel and traffic fatalities, tending to reduce both.

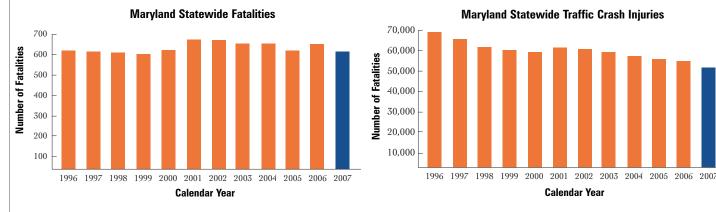
Maryland's highway injury rates have also generally declined steadily over the last three decades. Injury rates here have declined from 242.1 in 1973 to 91.2 in CY 2007; a decline of more than 60 percent. Steady progress is being made toward the target of fewer than 50,000 traffic injuries per year by the end of CY 2010. The number of persons injured has dropped from 59,500 in CY 2002 to some 51,700 in CY 2007.

The key recent accomplishments that are contributing to lower highway fatalities and injuries are an increase in seatbelt usage and a reduction in fatalities of young drivers. Fatalities and injuries due to impaired driving still comprise a large proportion of the overall rates and will continue to need more vigilant focus.

In FY 2008, SHA kicked off the Choose Safety For Life campaign with multiple stakeholders expressing interest in participation in the three year campaign. This all-encompassing campaign promotes overall traffic safety to drivers, pedestrians, bicyclists, motorcyclists and truck drivers with one voice. If everyone followed the rules of the road and five basic steps, virtually all roadways fatalities could be eliminated. The rules are: Buckle up, Slow down – speeding kills, Always drive sober, Focus and Everyone share the road.

This mobile billboard is part of the Choose Safety for Life campaign, which had its kickoff event in April of 2008.





#### **Reducing Impaired Driving**

In 2008, the SHA Administrator chaired the Task Force to Combat Driving Under the Influence of Drugs and Alcohol. The task force of 21 persons represented a diverse group of public and private agencies and associations

## CHAPTER 2 Highway Safety



such as the judiciary, law enforcement, hospitality and beverage business community, and the insurance industry, among others. The task force held twelve meetings that included presentations from practitioners and experts in their respective fields. A final prioritization of the issues and proposed recommendations led to 42 recommendations, divided into the following seven categories:

- Special Multi-Agency Initiative (one recommendation)
- Maryland Department of Transportation Initiatives (14 recommendations)
- Law Enforcement Initiatives (seven recommendations)
- Intervention and Treatment Initiatives (six recommendations)
- Court Initiatives (five recommendations)
- Education Initiatives (two recommendations)
- Legislative Initiatives (seven recommendations).

Other activities SHA engaged in to reduce impaired driving throughout FY 2008 included:

- SHA spoke at the annual national press event sponsored by the National Highway Traffic Safety Administration (NHTSA) to kick off the "Drunk Driving. Over the Limit. Under Arrest" crackdown campaign on impaired driving through the Labor Day holiday.
- SHA joined the Maryland State and Howard County officials to launch Checkpoint Strikeforce. This was a targeted enforcement and education campaign aimed to reduce impaired driving in Howard County. Law enforcement statewide conducted a minimum of four enforcement operations, consisting of checkpoints or saturation patrols, during the weeks of August 15 through September 1, 2007. A simultaneous radio campaign was launched to bring attention to drunk-driving consequences and enforcement efforts statewide.
- SHA supported several programs to provide rides to would-be impaired drivers such as WRAP's SoberRide program which ran a free taxi ride program that provided 218 rides on Saint Patrick's Day, 281 on Halloween and 2,510 during the month of December; and, AAA's Tipsy? Taxi! campaign which provided more than 400 rides during high-risk holiday weekends.
- Throughout the July 4th holiday, Maryland conducted numerous education and enforcement efforts designed to reduce instances of impaired driving. Activities included purchasing local media, conducting sobriety checkpoints and DUI saturation patrols, and other localized efforts to prevent impaired driving.

• During the St. Patrick's Day holiday, statewide, law enforcement conducted 28 impaired driving enforcement activities (saturation and sobriety checkpoints), reporting 45 arrests and nearly 4,000 vehicle contacts. With SHA's support, the Chief's Challenge Campaign was kicked off in March and now includes impaired driving as an enforcement and outreach component. This inclusion in the program promises to bring more outreach programs.

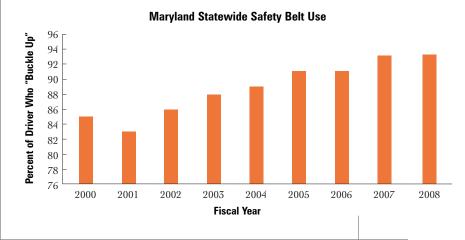
## **Improving Occupant Protection**

SHA met or exceeded all of the agency's targets within the Highway Safety goal in CY 2007. There were decreases in the number of unrestrained fatalities and injuries as well, continuing the downward trend from FY 2007. In CY 2007 SHA also observed a seat belt use rate calculated at 93.1 percent in June 2007 and finished the calendar year at 93.3 percent, an increase of .02 percent from 2007.

One new initiative SHA kicked off, in conjunction with WHFS, a local Baltimore radio station, was the "Buckle Up Tough Guy" safety belt use campaign. The campaign was designed to reach and inform Maryland's pick up truck drivers who historically have a low seat belt usage rate.

Maryland participated in the national mobilization of the "Click it or Ticket" campaign. A kickoff event was held in Baltimore to draw attention to the increased enforcement. The national "Click it or Ticket" campaign was held by NHTSA at Blair High School in Montgomery County. NHTSA is placed a heavy emphasis on teen drivers, as well as nighttime drivers, in this year's safety belt enforcement campaign. SHA reinforced with program with announcements on Dynamic Message Signs along Maryland's roads.

Finally, SHA continued its transition to a new Occupant Protection Program Coordinator. Plans were implemented to incorporate further aspects of traffic safety into the Chiefs' Challenge Program.



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SHA Administrator Neil Pedersen speaks at the Smooth Operator Campaign kickoff event.



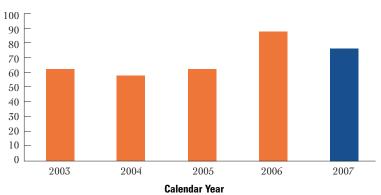
## **Reducing Aggressive Driving and Improving Truck Safety**

The Smooth Operator aggressive driving enforcement campaign kicked off in June with renewed partnerships and commitments from non-traditional stakeholders. Law Enforcement actively supported the Smooth Operator program as the best method for addressing aggressive driving. The program continues to expand in its breadth, not only in Maryland but in other new regional partners such as New Jersey. The program is considered as a best practice likewise outside of this country. These developments help to brand the program and will eventually lead to much higher public awareness of the problem, as well as the measures in place to combat it.

Changes in reporting criteria for Aggressive Driving related crashes were made in 2008, causing the figure to experience a significant upturn. However, these new criteria will provide more accurate causation factors with which to work in developing effective programs. In the meantime however, no accurate trends have been identified with which to establish goals and objectives.

The Baltimore County Crash-Crime Corridor Project was piloted that integrates crash and crime prevention along a road. It showed signs of success in reducing aggressive driving.

## **Aggressive Driving Related Fatalities**



## **Pedestrian and Bicycle Safety**

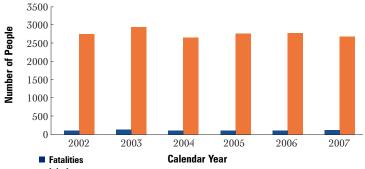
On a percentage basis, yearly pedestrian fatalities fluctuate even more than overall fatalities, making annual differences less significant than they are for total fatalities. Over the past decade, annual pedestrian fatalities have ranged between around 100 and around 120, with CY 2007 lying in the middle at 110. The state actually is farther from the CY 2010 target of fewer than 85 pedestrian fatalities than it was at the end of CY 2006. Pedestrians have been experiencing fewer reported injuries than a decade ago. The 2,530

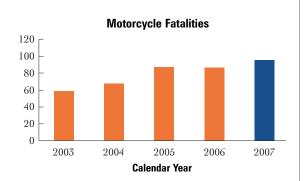
pedestrians injured in CY 2007 were about 200 fewer than the 2,740 in CY 1998. Achieving the target of fewer than 2,300 pedestrians injured per year the end of CY 2010 appears to be problematic.

On October 31, SHA hosted its annual Vests for Visibility program to promote Halloween pedestrian safety. SHA shops throughout Maryland loaned reflective safety vests to a parent or guardian to borrow – free of charge – to place over children's Halloween costumes.

The StreetSmart Campaign steering committee kicked off in February, with education and enforcement efforts occurring in the Washington Metro area. The campaign, of which SHA is a member, is aimed at changing motorist and pedestrian behavior, and reducing pedestrian and bicyclist deaths and injuries by raising public awareness, enforcing safety laws and educating the public on how to reduce risk.

## **Maryland Statewide Pedestrian Fatalities and Injuries**





## **Motorcycle Safety**

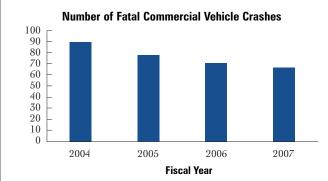
Motorcycle fatalities are becoming an increasingly serious issue. SHA completed the development of a media plan for the 2008 motorcycle safety campaign. It focuses on reaching sport bike riders through radio promotion in the Prince George's/DC-MD Metro area.

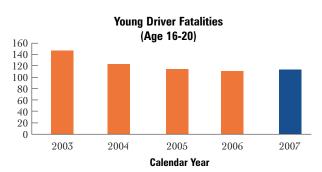
## **Truck and Bus Safety**

Commercial vehicle fatal crashes have continued on a steady downward trend over the past four years. Final statistics for 2008 have not been finalized, but it appears that Maryland will experience fewer fatal crashes this year than ever before. Maryland commercial vehicle enforcement agencies conducted 107,696 inspections in 2008, more than ever before, making Maryland one of the top producing states. Bus inspections alone were up nearly 50 percent over the previous year. Compliance Reviews conducted at the carrier's place of business more than doubled over the

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previous year. The Motor Carrier Division has reprinted the Maryland Truckers' Map and Commercial Vehicle Handbook to provide the latest in regulations and travel advice to the trucking industry.





## **Enhance Awareness of Safe Driving Among Young Drivers**

The data regarding traffic fatalities among young drivers is showing an encouraging trend of declining slightly over the past few years.

## **Enhance Safe Driving for Older Drivers**

The safety and security of drivers aged 65 years or more is of increasing concern in Maryland. The number of older Marylanders is increasing. Of the 5.3 million people in Maryland in 2000, 15 percent (801,036) were over the age of 60. The percentage is expected to increase to 25 percent of Maryland's projected population of 6.7 million by the year 2030. SHA continues its Seniors on the MOVE program to reach older drivers with a comprehensive traffic safety program tailored to their unique needs. The Seniors on the MOVE program is an active partnership between SHA, Community Traffic Safety Programs, The Johns Hopkins Bloomberg School of Public Health - Center for Injury Research and Policy, AAA Foundation for Safety and Education, Peter Lamy Center for Drug Therapy and Aging at the University of Maryland School of Pharmacy and Kids in Safety Seats.

## **Engineering Safety into SHA Roads**

SHA finalized the first version of the Lane Closure Analysis Program (LCAP) for performing quick analysis to determine lane closure schedules. This tool enables users to determine lane closures along freeways based on traffic volumes and acceptable queues and delays. By anticipating heavy traffic and adjusting lane closures accordingly, LCAP is a valuable new tool for ensuring work zone safety.

SHA constructed its first roundabout made entirely of pavement markings to eliminate motorist confusion at the intersection of the ramp from eastbound US 50 to Thompson Creek Service Road in Queen Anne's County. In a team effort, members from the senior engineering staff, District 2 traffic staff and paint crew, the Centerville, Easton, Denton, Chestertown and Elkton shops, and the manufacturer were able to construct this one-of-a-kind roundabout in 14 hours.

This roundabout, constructed entirely of pavement markings, is the first of its kind in Maryland.



SHA continued a number of other highway improvement programs and projects to enhance the safety of highway user. These include:

- installation of edgeline and centerline rumble strips and raised pavement markings
- upgrading barrier end treatments and the installation of median barriers
- use of brighter traffic sign materials and larger sign legends
- installation of countdown pedestrian signals
- identification and correction of safety problems through roadside safety audits and data analysis.

SHA's system preservation program includes several categories of funding dedicated to improving roadway safety. Overall the following types of safety-enhancing projects were completed in FY 2007:

- three intersections were improved specifically for crash prevention
- guardrail was replaced to upgrade end treatments for improved safety along US 15 in Frederick County and US 301, Crain Highway
- 20 projects to upgrade sidewalks and improve pedestrian safety throughout the state were completed.

## CHAPTER | 3 | Mobility & Congestion Relief

Goal: Improve mobility for our customers

## Highlights of our Accomplishments

Williams Gas Pipeline, an SHA contractor, working to relocate gas mains to make way for the ICC.



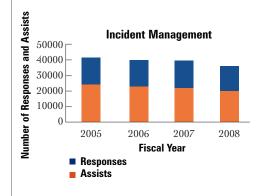
- SHA issued the Notice to Proceed on Contracts A & C of the Intercounty Connector (ICC), which cover the first and second major segments of the project, respectively.
- The second span of the Woodrow Wilson Bridge from Maryland into Virginia was opened to traffic. This project was featured in the May 2007 issue of Better Roads in an article entitled "On-time, On-Budget - Most of the Wilson Bridge Opens." The article recognized the contributions of the full project team, including the traveling public and project neighbors, for their efforts in the last six years to keep the project on time and on budget.
- The estimated user cost savings as a result of CHART congestion management activities in CY 2007 was \$1.118 billion. SHA subsequently increased the target to \$1.25 billion annually for future years.
- As of the end of FY 2008, SHA had completed 36 National Incident Management System (NIMS) certifications for a total of 923 in the State. During FY 2008, SHA participated in 26 homeland security preparation exercises.

## Managing Incident Delay - Coordinated Highways Action Response Team (CHART)

The CHART incident management program continues to provide safety and economic benefit to motorists and commerce in Maryland. Based on several years of data collection, SHA has established a target of attaining a user cost savings of \$1.25 billion a year on state highways by June 30, 2010.

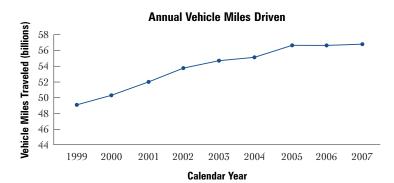
The basis for the development of the cost savings performance measure is a comparison of incident response times and clearance with and without CHART. This corresponds to an overall reduction in delay, which can be used to determine the user cost savings each year. The reduction in delay in CY 2007 was 35.98 million vehicle-hours, which was a slight decrease from the previous year's time savings of 37.5 million vehicle-hours. The reduction in delay is correlated to traffic volume and average daily traffic decreased during the calendar year. However, this reduction in delay corresponds to \$1.118 billion in direct benefits to highway users, which is an increase over the previous year's savings of \$1.092 billion.

The results obtained from the annual program evaluation continue to make CHART one of the more respected incident management programs in the country. One measure, added by the University of Maryland in 2004, captures the reduction in potential incidents due to the removal of disabled vehicles. For CY 2007, the reduction was 491 potential incidents.



- Responded to and cleared more than 15,000 incidents,
- Assisted more than 20.000 stranded motorists.
- Brought two new operations centers on-line. This brings the total to 65 centers in the state which includes responding agencies such as the Baltimore Department of Transportation and Baltimore Police Department.
- Completed a major enhancement that provides the following:
  - A connection to the Regional Integrated Transportation Information System (RITIS),
  - Improved user interface for CHART operators,
  - Ability to detect duplicate traffic events and merge the data.
- During FY 2008, CHART deployed five new closed-circuit TV (CCTV) cameras and one new dynamic message sign. This brings the total number to 547 devices deployed throughout the state. The camera video feed interoperability with other regional agencies, allows for access to more than 300 additional camera sites in Maryland.

## **Delivering Projects That Provide Additional Capacity**



SHA continues to increase system capacity as travel on Maryland's highways increases.

## **Intercounty Connector**

Monumental developments for the Intercounty Connector (ICC) in FY 2007-2008 occurred in design, construction and in the courts. United States District Court Judge Alexander Williams, Jr. ruled that, "there is no legal or equitable basis to prevent the Intercounty Connector from moving forward." Within that month, Contract A (the section from I-270/I-370 to east of MD 97 in Montgomery County) began heavy construction.

## **Savings Due to CHART Incident Management**



User Cost Savings

This drop in the number of vehicle hours saved in 2007 is attributed to a reduction in Annual Average Daily Traffic (AADT)  $\partial uring\ CY\ 2007.$ 

CHAPTER | 3 | Mobility & Congestion Relief

From left to right: Maryland Gov. Martin O'Malley, Virginia Gov. Timothy M. Kaine, Sen. John W. Warner and U.S. Transportation Secretary Mary Peters tighten the last bolt on the second span of the Woodrow Wilson Bridge.



The new MD 210 Interchange carrying traffic on the Maryland approach to the Woodrow Wilson Bridge



By the end of June 2008, the 7.2-mile segment was 24 percent complete with 18 bridges underway, including work along Shady Grove Road. Contract C, reaching from US 29 to I-95 in Prince George's County, was nearly seven percent complete by the fiscal year's close, with its full construction Notice to Proceed issued in spring of 2007. The right-of-way team settled 63 percent of the properties that the ICC project impacts and cleared 94 percent of the properties for construction. Throughout the planning and now design and construction stages of the ICC, environmental protection and community sensitivity have remained core values.

## Woodrow Wilson Bridge (WWB)

Although bridge projects are usually considered system preservation and maintenance activities, the WWB project adds considerable capacity to the D.C. metro highway system. The following are Woodrow Wilson Bridge construction accomplishments for FY 2008:

- Wilson Bridge Inner Loop (Southbound I-95/495): The second span of the Woodrow Wilson Bridge from Maryland into Virginia was opened to traffic on June 1, 2008. Three lanes of southbound traffic were moved into their final configuration. Pier protection support construction continues.
- National Harbor I-295 Interchange: The remainder of the project, which started in 2005 and is scheduled for completion in mid-2009, is 82 percent complete. Ramps to and from National Harbor were opened in March 2008 in coordination with National Harbor's Grand Opening.
- MD 210 Interchange and Oxon Hill Road: This effort to build two bridges (six spans) over the Beltway, ramps, five retaining walls, grade separation from Oxon Hill Road and relocation of a salt barn was completed in December 2007.
- MD Beltway Inner and Outer Loops: Multiple bridges that will ultimately carry Inner Loop local traffic and Inner Loop express have been completed. A combined bridge that will ultimately carry Outer Loop Local and Express Traffic was 87 percent complete at the end of FY 2008.
- Operations and Maintenance: Continued coordination with Virginia Department of Transportation (VDOT) to develop an innovative approach to maintenance and bridge operations and prepare a joint maintenance contract that will be advertised for proposals in FY 2009.

## Major Projects that Provided Additional Capacity

• Completed the \$58.2 million MD 5 (Hughesville Bypass) construction project in Charles County. This new road bypasses Hughesville, easing congestion for more than 41,000 motorists who travel through the town in their regular commutes and improving safety for the residents of Calvert, Charles and St. Mary's counties. The \$55.8 million project, largely planned and designed in-house by SHA staff with consultants, was finished on time and on budget.

• Completed the \$49.4 million US 29 (Columbia Pike) Interchange at Briggs Chaney Road in Montgomery County

## **Bike Routes**

SHA is committed to implementing strategies aimed at improving the comfort and safety of bicyclists along Maryland's roadway network. In FY 2008, SHA improved 27 miles of bicycle access across the state for a total of 834 improved miles of bicycle routes. SHA is responsible for a total of 1529 miles of signed, designated bicycle routes in Maryland.

SHA also made funding and assistance available to project sponsors, which resulted in the following trail projects being completed:

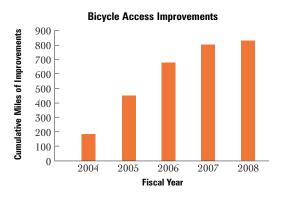
- The final mile of the Wakefield Valley Community Trail in the City of Westminster
- A trail, boardwalk and four bridges in Rockville over the I-270/MD28 interchange
- A 2.75 mile extension of the Jones Falls Trail through Druid Hill Park to the Woodberry Light Rail stop in Baltimore City.

## Minimizing Delay at Intersections

- In FY 2008, SHA retimed 425 traffic signals to improve traffic flow through those intersections. The adjustments reduced traveler delay by 13.1 percent along the affected corridors.
- US 40 Pulaski Highway completed a streetscape improvement project as well as intersection improvements in East Baltimore from MD 43 to Middle River Road.
- US 50 Ocean Gateway completed improvements from MD 328 to MD 331-resurfaced the entire road, provided new striping for turn lanes to improve operation.
- US 40 intersection completed improvements in Baltimore County from Winter's Lane to Frederick Road near the Baltimore Beltway.
- Extended turning lanes and ramps to reduce delays at several major intersections along MD 404, I-495 and I-270.

Construction of the MD 5 (Hughesville Bypass) project.



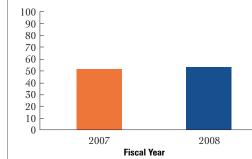


Bicyclists in Maryland comprise a key group of SHA customers.



## CHAPTER | 3 | Mobility & Congestion Relief

## **Percent of Sidewalks that meet ADA Compliance**



## Sidewalks - Pedestrian Safety and Accessibility

SHA is committed to implementing strategies aimed at improving the comfort and safety of pedestrians along Maryland's roadway network. By the end of FY 2008, 47 percent of SHA-owned roads in urban areas had sidewalks. This is a 17 percent increase from the previous year.

SHA ADA projects, such as this one in Columbia, have created 495 miles of ADA compliant sidewalks in Maryland.



## **Accessibility for People with Disabilities**

Maryland has one of the most advanced programs in the country for meeting the American with Disabilities Act (ADA) requirements along roads. Last year, the Federal Highway Administration recognized Maryland's program as a model for other states, so SHA has conducted peer exchanges for numerous other departments of transportation. To date, 495 miles of sidewalk out of approximately 920, or about 54 percent, have been made ADA compliant.

To assist with this effort, SHA placed the inventory of sidewalks on a Geographic Information Systems (GIS) map and designed a tool to help determine future priorities for sidewalk construction. Using the GIS information, SHA will consider key factors such as safety, nearby transit service, schools and government service buildings and nearby public venues such as restaurants and shopping centers. The GIS-based ADA program was also made available to counties and cities for their use and to improve inter-jurisdictional coordination.

SHA also continued to make progress in providing equal access to traffic signals for visually impaired citizens under ADA through the use of auditory alerts in addition to the traditional visual cues. In FY 2008, 340 Accessible Pedestrian Signals (APS) were installed or began construction.

Furthermore, 60 traffic signals were converted to include pedestrian and ADA accommodations along Coastal Highway in Ocean City in FY 2008. This completed a multi-year project to provide pedestrian improvements along Coastal Highway.

## Mobility & Congestion Relief | 3 | CHAPTER

# **Emergency Preparedness and Regional Incident Management Training**

- SHA attended an Executive Overview in Disaster Recovery session at MDOT during which emergency preparedness and response, business impact analysis, crisis communications, and technology and security issues were discussed.
- Personnel and equipment from the Glen Burnie Shop, Office of Maintenance, and Office of CHART successfully participated in the Maryland Aviation Administration (MAA) EPLEX 08 Emergency Preparedness Exercise conducted at BWI Thurgood Marshall International Airport. The exercise simulated multi-agency response and coordination necessary to respond in the event of an air transportation incident.

CHAPTER

## **System Preservation and Maintenance**

Goal: Maintain a quality highway system

## **Highlights of our Accomplishments**

Repairs to the US 50 (Harry W. Kelley) Bridge into Ocean City were completed and the bridge reopened ahead of schedule.



- Despite the continued increase in material, equipment and operating costs, SHA improved the overall condition of pavements.
- SHA continued to reduce the number of structurally deficient bridges on the state highway system.
- The US 50 Harry W. Kelley Bridge re-opened ahead of schedule.
- The second span of the new Woodrow Wilson Bridge was opened to traffic.
- Overall maintenance ratings are continuing a slight decline in quality
  of service due to the amount of operating funds not being able to keep
  up with material and equipment costs.

## Overview

In FY 2008 SHA's maintenance activities were rated as the most important activity that SHA delivers according to the agency's 2008 external customer survey. With five of the agency's seven engineering districts seeing reductions in their operating budgets due to a cut in the overall operating budget for FY 2008, many of the maintenance shops needed to adjust their work plan objectives to continue to deliver on the agency's initiatives and to correct any deficient levels of service. The agency received a rating of "A" or "B" from the following percentage of drivers: 84 percent for plowing, salting and sanding snow-covered roadways, 81 percent for installing signs that show direction, regulations and information and 80 percent for roadway features – lights, guardrails, etc.

## Sé

salt along US 50.

An SHA maintenance vehicle distributes

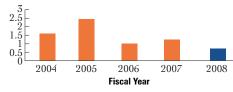


## Responding to Winter Storms

SHA statewide had a 36 percent decrease in the time to regain bare pavement when compared to FY 2007. Pounds of salt used per lane mile showed a statewide decrease of nearly 10 percent from last year. This is significant since, as occurred last year, multiple ice and freezing rain events hit the Maryland area, which require the use of more salt than typical winter operations. Also, due to these ice storms, SHA's expenditures per lane mile per inch of snow increased slightly. As a result of the additional salt used and increased hourly rates on SHA and hired trucks, the agency increased expenditures for winter operations. SHA equipment availability ranged from 94 percent to 96 percent.

SHA is now in the process of creating an overall performance index for winter operations that will place weights on factors such as: hours to regain bare pavement, tons of salt used per lane mile per inch of snow, and expenditures per lane mile per inch of snow.

## Number of Hours to Regain Bare Pavement After a Winter Storm



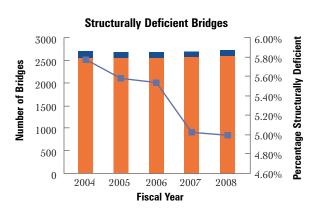
SHA FY 2008 ANNUAL REPORT

## **Bridges**

The 2008 SHA External Customer survey finds that 96 percent of our customers hold keeping Maryland's bridges safe as a top priority. SHA bridge data is taken from the annual bridge inventory submission to FHWA, which is done in April of each year.

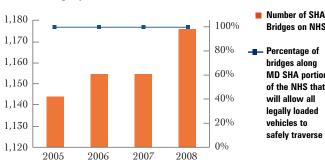
During the last five years SHA has shifted and increased funding to address structurally deficient bridges. As a result, our status quo of 143-148 structurally deficient bridges, which had been the norm in the past, has dropped to 129 since the beginning of 2008. This involved using funds to upgrade bridges faster than the rate at which new deficiencies were discovered through regular inspections.

In managing our bridge condition program, SHA puts a priority on maintaining the National Highway System (NHS) bridges and this year continued to allow all legally loaded vehicles to safely traverse all NHS bridges in Maryland.



- Structurally Deficient Bridges
- Total Number of SHA Bridges
- Percent Structurally Deficient

## Percent of SHA Bridges Along NHS that Allow **All Legally Loaded Vehicles to Traverse**



The sharp increase in the number of SHA Bridges on the NHS in 2008 can be attributed to bridges constructed as part of the Woodrow Wilson Bridge (WWB) Project.

## FY 2008 Bridge accomplishments include:

- On February 15, the US 50 Harry W. Kelley Bridge re-opened ahead of schedule after being closed for less than a month for renovations. The residents, businesses and visitors to the greater Ocean City area were able to return to their daily traffic routines early.
- In response to the tragic collapse of the westbound I-35 bridge over the Mississippi River in Minneapolis, SHA leaders, Secretary John Porcari, Governor Martin O'Malley and Lt. Governor Anthony G. Brown briefed the media on SHA's bridges and bridge inspection program.

#### **System Preservation and Maintenance** CHAPTER

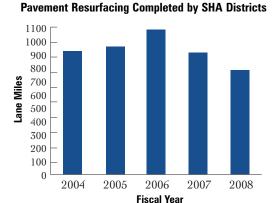
Staff also worked with the The Sunpapers to explain the inspection process in a subsequent news story.

- SHA replaced the following bridges, which collectively cost more than \$14 million to construct:
  - MD 936 (Upper George's Creek Road) over Neff Run in Allegany County
  - MD 36 (Lower George's Creek Road) over Elklick Run and George's Creek in Allegany County
  - Freeland Road over I-83 (Harrisburg Expressway) in Baltimore
  - MD 28 (Tuscarora Road) over Tuscarora Creek in Frederick County.

## **Preserving Pavement Condition**

In FY 2008 SHA increased the overall statewide percentage of lane miles with acceptable ride quality to 85 percent from 84 percent in the previous year. SHA also underwent an FHWA process review of our pavement management system, our available options for preventative maintenance treatments and our overall treatment selection process. The agency has started to implement several recommendations from the review, including defining "benefit" in lane-miles. Accordingly, a steady improvement has been identified on roadways with poor friction. SHA also acquired a new Automatic Road Analyzer (ARAN) vehicle that has run in tandem with an older vehicle for comparison in order to improve the overall network coverage and data accuracy. Finally, SHA adopted a shift in systems preservation philosophy to include more diverse selection of rehabilitation strategies and shorter term improvements.





The health of the SHA network is monitored through four pavement performance parameters: ride quality, friction, rutting and cracking. Roadways with acceptable friction condition comprised 88 percent of the network, 5 percent higher than in 2006. This increase is considered unusual

## System Preservation and Maintenance 4 continued



in that it exceeds normal variances. That said, friction numbers can change significantly from year to year simply because of environmental influences. The acceptable cracking condition was 87 percent and acceptable rutting is 95 percent.

In calendar year 2007, a total of 1,950 lane miles of pavement were improved on the SHA highway system. A total 714 lane-miles were improved through resurfacing the roadway and the other 1,236 lane-miles were improved through some type of maintenance treatment. Of 1.41 million tons of hot mix asphalt produced in Maryland in 2007, 1.26 million tons were placed on SHA pavements.

### **Road Maintenance Activities**

## Line Striping

Statewide, all seven districts made their strong annual push to restripe roadway lines diminished by winter operations. Many of the seven districts will continue to utilize durable markings as part of this effort. Even utilizing these higher quality markings, the unit cost per lane mile has decreased by 7.6 percent, from \$440.54 per mile striped in FY 2007 to \$407.11 per mile striped in FY 2008.

## **Highway Lighting**

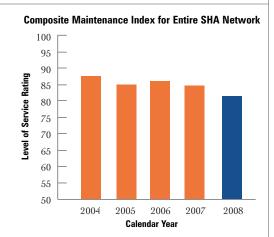
Overall, the statewide average percentage of functioning lights has increased 1.76 percent, from 88.1 percent in FY07 to 89.86 percent in FY 2008. However, this is mainly due to a spike in the statewide percentage of lights lit in the last three months of FY 2008. The statewide lighting performance trend continues to decline with the current FY 2008 level of service failing to meet the 90 percent target by only 0.73 percent.

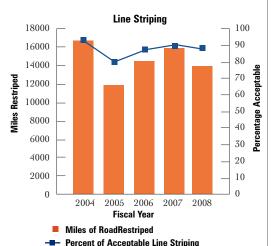
### **Brush and Tree**

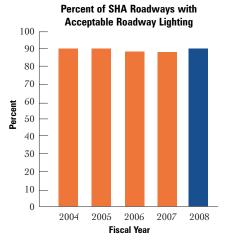
Statewide, there was a decrease of more than 25 percent in the amount of roadside miles trimmed in comparison to FY07. The cost per roadside mile trimmed is nearly \$4,411 per mile higher than FY07. This is mainly due to a greater emphasis being placed on the cutback of tree canopies as opposed to routine tree trimming.

### Mowing

Statewide, there was a 1,376 acre decrease in the amount of acres mowed, from 91,189 acres in FY 2007 to 89,813 acres in FY 2008. Even though many of the shops experienced some hardships in completing their mowing activities, such as having to perform additional mowing cycles on overtime due to contractors either defaulting or not properly completing their contracts, the unit cost only rose \$2.88/acre.



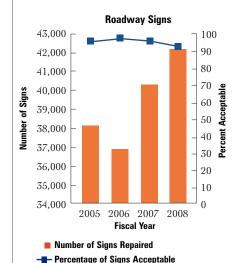






#### CHAPTER

## **System Preservation and Maintenance**



## **Highway Signs**

SHA increased its investment in sign repair and replacement as the percentage of functionally adequate signs decreased from 97.5 percent in FY 2007 to 94.3 percent in FY 2008. SHA replaced 42,295 signs in FY 2008, compared to 40,295 in FY 2007. Average unit cost increased by \$1.22 per sign, from \$115.27 in FY 2007 to \$116.49 in FY 2008.

Members of the Boy Scouts of America, an Adopt-A-Highway program participant, pose with the SHA Litter Critter.



#### **Anti-Litter**

Statewide, SHA removed 15,426 truck loads of litter from Maryland roads, a slight decrease from FY07. However, the unit cost rose by 20 percent, or nearly \$120 per truckload. This increase in cost could be attributed to several causes such as increased use of contractors, less trash per lane mile, increased fuel costs and increased use of SHA crews due to restricted budgets.

SHA also continued its Keep Maryland Beautiful, Adopt-A-Highway and Sponsor-A-Highway anti-litter campaigns. Currently, 987 miles of Maryland highways are cleared of litter through the Adopt-A-Highway program and 246 miles through the Sponsor-A-Highway program.

# Percent of SHA Roadways with Acceptable Litter Levels 100 95 2004 2005 2006 2007 2008 Calendar Year

## **Asset Management**

SHA uses an asset management approach to determine system preservation projects. This approach is based on solutions that are most cost-effective in the long-term. This has traditionally been SHA's approach for determining pavement and bridge rehabilitation projects. In recent years, SHA has been laying the groundwork to expand this to other roadway features. In 2008, the first phase of creating an Asset Management Data Warehouse was completed. This involved the creation of system boundary and risk assessment documents. Other pieces of this system that were developed and tested were:

- a consistent lighting data collection methodology across all seven districts:
- identification of data owners and asset owners for all SHA highway
- a pilot study for how to use construction data to capture changes to the asset inventory.

## Organizational Effectiveness | 5 | CHAPTER

Goal: Improve the effectiveness of managing our resources and projects

## **Highlights of our Accomplishments**

- In FY 2008 SHA managed its operating budget targets at or under one percent of the annual amended appropriation. During this same time, the capital program was managed well beyond our anticipated goal. We finished the fiscal year with our capital projects on track and with a budget credit of \$21.2 million from the Maryland Transportation Authority.
- 99.24 percent of all vendor invoices were paid within 30 days of receipt, up from 98.80 percent in FY07.
- In FY 2008, SHA also met its intended Administrative and General (A&G) budget targets, having expended only 98 percent of the total A & G budget
- Audits recovered more than \$450,000 from consultants for overhead adjustments.
- Achieved 25.6 percent M/DBE participation on Architectural and Engineering contracts and 20 percent overall M/DBE participation on all contracts; which total more than \$680 million per year (equating to about \$135 million awarded to M/DBE firms in Maryland).
- Completion of delivery of required training increased from 30 percent to 60 percent in 2008.

SHA employees attend a presentation on industry best practices at the 2008 Construction Expo.



## Performance Excellence at SHA

SHA is steadily building a performance-based management culture. Fiscal Year 2008 began the process of a three-year cycle to perform internal performance excellence assessments within all offices throughout the agency. These assessments are used within each office to prioritize areas of emphasis and/or improvement out of the five areas of performance excellence; thus, creating three-year improvement plans.

## **Business Planning and Performance Measurement**

SHA continued bi-weekly reviews with Key Performance Area (KPA) councils to review performance measure results and adjust activities as necessary to keep performance on track. An improvement was made to the linkage between an agency-wide business plan and implementation at the district level. To achieve this, a common set of performance measures was established for the districts. Furthermore, with the implementation of performance-based appraisals for senior managers, local business plans were aligned to senior managers' annual performance plans. FY 2008 also marked the beginning of reporting performance measures to the Governor's StateStat office based on the SHA Business Plan. SHA now presents our business results monthly.

## CHAPTER | 5 | Organizational Effectiveness

## Leadership

In FY 2008 SHA continued the agency's many leadership development programs designed for all levels of employees. SHA's leadership competencies were incorporated into performance appraisals. The employee survey was also used to measure agency-wide leadership skills, fair practices and equity in treatment of employees.

## Process Improvement and Management

SHA identifies process improvement needs through internal assessments, business plan performance results, external customer surveys, internal employee surveys and process improvement teams. In FY 2008:

- Time for recruitment/hiring was reduced approximately 40 percent; a random sample from 2007-2008 showed a reduction from 132 to 78 days.
- The amount of energy needed to cool the computer server room was reduced by nine percent.
- A process was developed to approve decisions regarding sound barriers, eliminates redundant steps and clarifies roles and reduces the total decision making process by three months.
- Environmental Monitor's Toolkit improved the process of inspecting and reporting on adherence to regulations and commitments. Project issues, inspections, and impact reports are now made online immediately, and e-mail notifications are provided to keep project stakeholders and agency representatives abreast of project status in real time.
- Task of matching and eliminating Purchase Orders reduced exponentially from five -14 days to approximately one hour with automation.
- Highway User Revenue (HUR) distribution and the Monthly Aging Schedules Preparation processes was reduced from one week to two days and from three to four days to two-three hours, respectively.
- Save \$4,200 per project and 120 man hours annually by improving the process of obtaining copies of completed construction plans.
- Materials and Supplies Process Improvement Team produced SHA-wide best practice procedures.

#### Customer Communications, Service and Satisfaction

See the Customer Communication, Service and Satisfaction chapter of this report for complete details.

## Workforce Planning and Development

Developing employees is a high priority at SHA and is discussed later in this chapter.

## **Employee Satisfaction and Well-Being**

### **Employee Satisfaction**

SHA surveys employees every year to elicit overall job satisfaction, and to also ascertain employees' views on specific topics (leadership, process management, knowledge management, workflow) affecting their work unit. Overall satisfaction with working at SHA is very high as shown in the graph below.



FY 2008 began by investigating and working on issues identified from the Spring 2007 survey.

- Recruiting the right people with the right skills is a widespread concern shared among managers and staff at SHA. Although salaries are often at the heart of the issue, SHA implemented many improvements, such as additional recruitment outreach and process improvements, that reduced recruitment and hiring times.
- The survey revealed some confusion about how to identify ethical behavior in an office, so the agency implemented a self-evaluation checklist for managers, coordinated with the State Ethics Commission to hold a class specifically for SHA, and conducted random surveys of employees to better understand sources of misunderstanding.
- Finally, SHA began to look into the management style that leads many employees to state that they are criticized more than they are praised – not uncommon in large organizations. SHA developed and offered "Coaching for Development" and "Leadership for Non-supervisors" training to address the perception.

The FY 2008 survey was conducted in May and June. The data shows an increase in overall satisfaction and had a 76 percent response rate. While it is not possible to directly correlate the reason for the increase in satisfaction, there are several factors that contribute, such as:

• Satisfaction with recruitment increased by 14 percent, the largest increase of any area in the survey (although it is still the biggest issue among managers).

CHAPTER | 5 | Organizational Effectiveness

- Managers in every office worked directly with employees on assessment of issues from the previous survey and many held focus groups that allowed employees to openly discuss issues; openly acknowledging issues at work often directly results in a more positive outlook within a group.
- Significant improvement in perceptions about recognition among staff and managers
- More than 75 percent of respondents were informed of the results of the 2007 survey and more than 60 percent of respondents believe that the survey will be used to make changes.

The safety of SHA employees and contractors on the job is paramount.



## Workplace Safety

SHA has an excellent history of keeping workplace injuries down. In a business where injuries on the job can involve serious car crashes, it is an important issue. In FY 2008:

- The number of claims went down by 9 percent from the same time last year. In FY 2007 there were 109 injuries; in FY 2008 there were 99. This is especially significant when the rest of the state experienced an increase in the number of workplace injuries.
- The SHA incident rate was 5.4 percent well below the industry rate.

The "temporary modified duty" program, developed by SHA's Safety Management Team in FY 2004, continued to assist those employees who are injured on the job. The program helps bring employees back to the workplace on a restricted basis until they are released to full duty by their medical provider. Through October 2008 (slightly beyond FY 2008), injured SHA employees worked 412 days on restricted duty, as opposed to lost work days.



\*Includes employees injured in car crashes

## Organizational Effectiveness 5 continued



## Wellness Programs

SHA also assists employees with tools to make good decisions regarding their health. The following initiatives were offered throughout FY 2008:

- Alternative Work Schedules
- Nursing Mothers Room
- Telecommuting
- Wellness Program
- Work-Life Fairs
- Career Counseling & Planning Services
- Transit Subsidies

## Safety-Sensitive Drug and Alcohol Testing

SHA places a high emphasis on employee safety and accountability for meeting drug and alcohol abuse policies and federal requirements for random drug and alcohol testing. In CY 2008, we tested 83 percent of SHA safety-sensitive employees, which exceeds the federal requirement of 75 percent.

### **Medical Services**

The SHA physician provided direct consultation on more than 200 employee cases, including the referral of 60 cases for workability exams with the MDOT Medical Advisor per COMAR regulations. Many of these exams resulted in medical clearance for the employee to safely return to work, thus supporting employee productivity while minimizing health and liability risks. Throughout the year, he also provided consultation with shops, divisions, and employees on issues of concern to employees such as staph/MRSA infections, Lyme disease, mold, carbon monoxide, cancer-causing agents.

## **Workforce Planning and Development**

The Workforce Resource Center is an internal website that was created to provide a one-stop interface with access to resources that assist SHA employees and managers in career and workforce planning activities.

## Performance Appraisal Pilot Program

SHA launched a pilot performance-based appraisal program for managers; 161 managers developed individual performance plans containing objectives and targets that support the agency Business Plan, for which they are held individually accountable.

## Recruitment and Retention Successes

- The selection plan and interview summary process became electronic and reduced turnaround time from two weeks to two days.
- SHA recruiters increased presence at engineering career fairs.





CHAPTER | 5 | Organizational Effectiveness

- Maintained an average 30-day turnaround time for all reclassification actions.
- Reduced the time from job announcement to eligible list to less than 33 days for most recruitments; the standard for MDOT is 47 days.

## **Succession Planning**

SHA leadership had determined that succession planning for maintenance positions was a priority. Workforce development activities based on SHA's Highway Maintenance Competency Model for the highway maintenance positions of Resident Maintenance Engineer and Assistant Resident Maintenance Engineer has been ongoing for 39 participant employees.

In FY 2008, additional SHA divisions took steps to begin implementing succession planning models.

- The Office of Traffic and Safety (OOTS) identified key individual skill sets that are vital to their functions, identified technical experts eligible for retirement and began knowledge mapping to identify knowledge sets within the division.
- The Maintenance and Construction divisions both developed Succession Planning competency models
- · SHA continued to offer opportunities for managers and employees to engage in professional development mentoring relationships.

### **SHA University**

By creating a virtual University, SHA has formally embraced the concept of being a learning organization - one that integrates employee development, performance, and talent management into one package to help employees achieve their greatest potential during their SHA career. In FY 2008, the following accomplishments were achieved:

- A greater emphasis was placed on managers as coaches to guide employees' learning and development to match the business needs of the organization.
- Curricula to prioritize and guide the delivery of appropriate training were developed for 2,790 employees (approximately 89 percent).
- Approximately 1,132 employees participated in the University (approximately 37 percent of the workforce).
- Refined the online Student Learning Center to manage a training program with 24,715 registrations, 1,100 classes and approximately 8,900 training requests recorded for next year. Each employee now has access to training information, and their own training history, as well as the current training class schedules.

## Organizational Effectiveness 5 continued

There was also a focus in FY 2008 on ensuring that core training - classes required by law or internal policies - were being delivered in a timely manner. Some examples include:

- Sexual Harassment Prevention Training conducted federally mandated sexual harassment prevention training for 2,170 employees, more than two-thirds of all employees; surpassing the goal to train one-half of all employees by the end of the fiscal year.
- SHA-Wide Diversity Training began to make diversity awareness training more accessible to employees statewide. Ten classes were held in Districts 1, 2, 3, 4 and the Hanover complex, attended by 200 employees. More than 380 employees were trained at the Diversity Awareness Training Conference. The results of the SHA Employee Satisfaction survey show that 73 percent of staff and 84 percent of managers responded favorably to the statement "employees of diverse backgrounds have equal opportunity for advancement (at SHA)."
- Internal Audits Controls provided internal control assessment training for all SHA offices, which covered basic internal controls over SHA's procurement and financial functions/activities.
- Procurement Training 94 employees were trained in basic small procurement, and 106 employees received small procurement certification, in one year. All Resident Maintenance Engineer received small procurement supervisory training and all District Financial Officers are now certified in procurement practices. Since April 2005, 731 employees have received Small Procurement Basic training.
- Materials and Supplies and Fixed Assets Inventory Procedures all maintenance shop personnel were trained during the year.
- ADA-awareness Approximately two-thirds of SHA staff have been trained.

## Small Business Reserve (SBR) and Minority/Disadvantaged **Business Enterprises (M/DBE)**

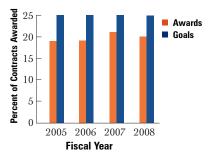
#### **Small Business Reserve**

SHA achieved the state-mandated goal of ten percent Small Business Reserve (SBR) program expenditures for small business. SHA has met or exceeded this goal since the SBR program inception.

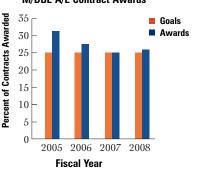
## M/DBE Awards

SHA attained 20 percent in awards to M/DBEs in all possible procurement areas, including A/E, constructions, maintenance, professional services, credit card, etc. (see graph). Although the goal was 25 percent, SHA is limited in M/DBE availability in the outlaying regions of the state; and a limited number of M/DBEs available to perform heavy road construction

## **Overall M/DBE Contract Awards**

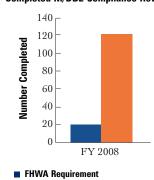


#### M/DBE A/E Contract Awards



## CHAPTER | 5 | Organizational Effectiveness

## **Completed M/DBE Compliance Reviews**



SHA Achievement

## awards shows SHA's commitment to trying new means to increase its overall numbers and that these initiatives have had a positive effect on the contracting program.

and related maintenance and bridge functions, The increase in M/DBE

## M/DBE Participation on Architectural/Engineering Contracts

SHA achieved 25.6 percent M/DBE participation on A/E consultant contracts; which exceeded the state goal of 25 percent. SHA has met or exceeded the 25 percent goal for A/E contracts since FY 2005 (see chart).

## **Compliance Reviews**

SHA completed 131 M/DBE compliance reviews, which far exceeded FHWA expectations of 30 compliance reviews per year (see graph).

## **Outreach Event Participation**

SHA participated in 62 M/DBE outreach events in FY 2008. This far exceeded our internal goal of participating in 12 outreach events, annually. SHA also provides M/DBE certification information and encourages those businesses that are not M/DBE certified through MDOT to consider certification.

### ICC DBE Coordination Group

SHA, as part of the ICC DBE Coordination Group, worked with the ICC GEC to establish an ICC workforce center with the Maryland Department of Labor, Licensing and Regulation to implement a one-stop center for ICC jobs and training opportunities.

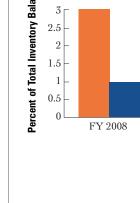
## **Financial Management**

In FY 2008 SHA managed its operating budget targets at or under one percent of the annual amended appropriation. During this same time, it's capital program was managed well beyond the anticipated goal. The agency finished the fiscal year with capital projects on track and with a budget credit of \$21.2 million from the Maryland Transit Authority.

- Inventory Adjustments SHA's business plan goal is to annually maintain the number of adjustments made to the materials and supplies inventory to three percent or less of the total inventory balance. The actual amount was less than one percent of the total (see chart). Much of this was due to increased on-site monitoring, training and guidance to our maintenance shops.
- Invoices Paid For the fourth year in a row, SHA exceeded its business plan goal of paying 98 percent of invoices within 30 days; this year the agency achieved 99.24 percent.

## **Inventory Adjustments**

to Total Inventory



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## Organizational Effectiveness 5 continued

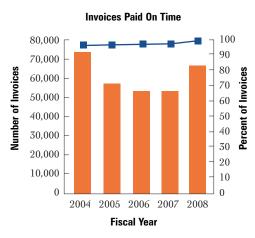


- Mega-Project Financial Management In FY 2008 SHA managed financial plans for two mega-projects simultaneously (the ICC and WWB) with the involvement of the project management teams, including FHWA, GEC and MdTA.
- Internal Financial Controls SHA completed internal control assessment audits for all SHA offices, to ensure that adequate internal controls were in place and functioning properly with regard to financial and procurement activities.

## **Procurement and Contract Management**

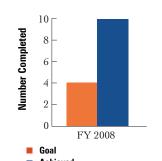
In FY 2008, SHA continued a vigilant approach to managing contracts and procurement activities. The year started with the preparation of its first Strategic Plan for Procurement. A number of new training initiatives and internal audits were initiated throughout the year in accordance with this plan:

- Procurement and Credit Card Audits of 15 maintenance shops.
- Contract Compliance Audits for more than 200 A/E consultant firms working for SHA to ensure that these consultants were in compliance with the agency's contract terms.
- Audits of mega-contracts includes four audit reports on A/E consultant contracts of the WWB project, eight routine audits of WWB project contractors and 26 invoice and overhead reviews for 14 consultant firms on the ICC project.
- A sample of District Construction projects were audited to ensure that SHA and contractors were in compliance with all applicable laws, regulations, policies and procedures, etc.
- Completed a review and approval of 166 overhead rates for consultants which ensured that consultant overhead rates were calculated correctly. Overhead adjustments were made as necessary to ensure that SHA recovers all consultant overhead audit adjustment amounts based upon approved overhead rates. Overhead adjustment amounts are calculated based upon the difference between overhead costs billed and overhead costs allowed each year.



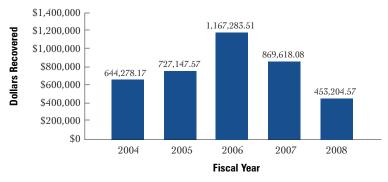
■ Total Number of Invoices Processed Percent of Invoices Paid On Time

#### IT System Enhancement



## CHAPTER | 5 | Organizational Effectiveness

## **Recovered Overhead Audit Adjustments (In Dollars)**



- Recovered \$450,000 in overhead audit adjustments. Since FY 2004, SHA has recovered more than four million dollars in overhead audit adjustments (see chart).
- Negotiated 70 A/E contracts to achieve five percent more man-hours than estimated and received procurement approval for them that totaled approximately \$123 million.
- Improved communication with the Department of General Service and reduced processing time on commodity contracts over \$25,000. This led to 300 employee training events on the use of new types of contracts.
- SHA dedicated a position to procurement for the ICC Contract C, a \$513 million design-build project which ultimately led to the selection of the top-ranked technical firm that also provided the lowest price.
- Created a Shop Procurement Roundtable comprised of District Financial Officers and shop procurement personnel to address procurement-related issues and concerns, communicate changes in procurement practices and rules, share procurement best practices, and provide an opportunity for procurement personnel to network.

## Information Technology/Automation

## System Enhancements

SHA completed the enhancements of more than ten IT systems. This exceeded SHA's goal, which called for five enhancements. Examples of progress on system enhancements include:

- Launched Customer Care Management System
- Enhanced Engineering Access Permits Information System
- Upgraded Hauling Permits System for Exceptional Permits
- Enhanced Corporate Purchasing Card System Reports and Bank Conversion
- Converted the monthly Ad Schedule reports from an outdated application to the Capital Forecasting System

## Organizational Effectiveness | 5 | continued

- Implemented updates to the Office of Real Estate Management System
- Successfully lowered Independent Verification and Validation recommendations for the HMMS to "Medium or below," increasing the likelihood of a successful implementation.

## Hardware Management

- The use of Virtual machine software technology allowed OIT to reduce the number of physical servers, which has resulted in requiring less cooling for the server rooms. OIT converted a portable air conditioning unit to a standby emergency.
- Completed implementation of 65 docking stations for laptop users so that the desktop PC could be removed, which netted a reduction of multiple assigned computers to individuals and reduced the number of computers needed for SHA staff.

## **Project Delivery**

## **Designing Major Projects**

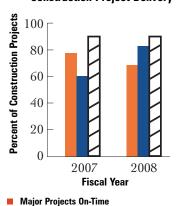
SHA sets a high standard for designing capital projects within the dates and budgets published at the time the project is funded for construction. The types of projects that are included in the statistics below are major capital improvements, larger bridge improvement projects, sound barriers and community safety enhancements. These projects take from one to five years to design. SHA's goal is to deliver 90 percent of these projects within 30 days of the original estimated Advertisement date and within 10 percent of the budget.

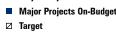
In FY 2008, 15 projects were advertised for construction; of which 10 (67 percent) met the on-time goal and 11 (73 percent) met the on-budget goal. In fact, the bids for the eleven on-budget projects came in 12 percent under the total amount budgeted in the Consolidated Transportation Program.

#### **Change Orders**

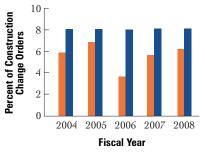
Change Orders are changes made to projects once construction has begun. These are often a result of conditions discovered underground that could not have been known in advance but could also be due to other issues that arise during construction. Change orders usually increase the cost of a construction project. It is SHA's goal to keep change orders below eight percent of the value of construction contracts. The agency has been successful at sustaining a rate of four to six percent which is in line with the industry average of 5-6 percent.

## **Construction Project Delivery**





## **Construction Change Orders**



Maximum Allowable Targe

CHAPTER

## **Environmental Stewardship**

Goal: Develop and maintain Maryland State highways in an environmentally responsible manner

## **Highlights of our Accomplishments**

A storm water management culvert along the ICC corridor at Shady Grove Road



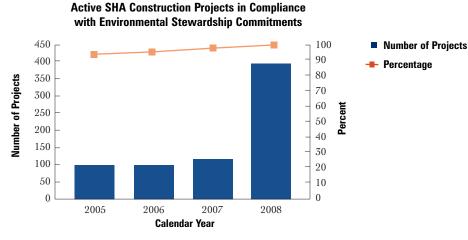
- SHA had no known violations of NEPA and environmental permit conditions in FY 2008.
- 100 percent of all NPDES permit conditions were met in FY 2008 and 80 percent of SHA storm water management facilities are functionally
- SHA was 99.7 percent compliant with all erosion and sediment control permit requirements on construction projects in FY 2008 with only three documented violations, each of which were corrected within 24 hours.
- As of the end of FY 2008, SHA had restored 67.5 acres of wetlands and 3.36 miles of streams beyond what was necessary to meet mitigation requirements.

#### Overview

SHA's commitment to environmental stewardship is far-reaching, from planning new projects to constructing roads and maintaining all SHA facilities. Environmental Stewardship is one of the key performance areas identified in SHA's Business Plan, and focuses on the natural environment (wetlands, streams, wildlife, water quality, etc.) as well as the human environment. SHA approaches environmental stewardship strategically, with an agency-wide focus to enhance Maryland's communities and environment. It is SHA's policy to stay in compliance with all applicable environmental regulations, deliver all of its commitments on environmental protection, and to be stewards of the environment by collaboratively contributing to enhance the environment.

## **Compliance with Environmental Regulations and Requirements**

Achieving 100 percent compliance can be a challenge, depending on the complexity of the construction project and weather conditions. Projects with complex construction sequences, requiring coordinated phasing with traffic control and grading operations, can make it difficult to achieve 100 percent compliance. However, SHA is committed to environmental compliance and stewardship. During FY 2006 and FY 2007, the compliance ratings were 99.7 percent and 99.6 percent, respectively. In FY 2008, the compliance rating was 99.7 percent. Although performance over the last several years has been consistently high, SHA continues to strive for 100 percent compliance 100 percent of the time, because it is recognized that even a single non-compliance finding can be detrimental to the environment and may raise concerns from the public and regulators. SHA will continue ongoing successful strategies to train staff and consultant partners, and to increase quality assurance inspections and the number of projects with dedicated environmental monitors.



In addition to environmental compliance in construction projects, all SHA maintenance facilities have been inventoried for environmental compliance. Maintenance and environmental staff are proactively addressing the issues identified. Progress was remarkable for FY 2008 in that SHA corrected 25 percent more compliance findings issues in one year than was anticipated. Every SHA District is to be commended exceeding their target performance. These positive results can largely be attributed to:

- Filling permanent SHA Environmental Resource Coordinator positions
- monthly inspections at all SHA Primary Maintenance Shops
- environmental support visits to all SHA Primary Maintenance Shops
- outreach and funding resources to primary maintenance facilities
- improved communication throughout the involved SHA offices and districts.

Environmental Enhancements as an Integral Part of Mega-Projects As part of the Woodrow Wilson Bridge (WWB) project, on October 16 SHA learned that the WWB Environmental Team was awarded the 2007 Federal Highway Administration Exemplary Ecosystem Initiatives (EEI) Award. This year, seven EEI's were designated and one, the WWB, involved the stewardship efforts of Maryland, Virginia and the District of Columbia. The following are environmental accomplishments associated with the Woodrow Wilson Bridge project in FY 2008:

- Wetland Mitigation: Relocation of unauthorized landfill at the Anacostia Wetland Creation Project. Reforestation is almost complete with landscaping and seeding continuing throughout summer 2008.
- Fish Reefs: To help expand fish habitats, the project arranged to have more than 50,000 tons of the old bridge's concrete roadway deck deposited for five artificial reef sites located in the Chesapeake Bay.
- Pedestrian/bikeway: Construction on the Maryland approach was completed. Construction continued on the deckover, which is

Pieces of the old Woodrow Wilson bridge spans were used to create 80 acres of artificial reef in five locations in the Chesapeake Bay, creating habitat for oysters, rockfish, black sea bass and other fish.



CHAPTER

**Environmental Stewardship** 

the structure carrying the trail over the Capital Beltway. The pedestrian/bikeway is expected to open in spring 2009.

Tracking dogs help round up box turtles for relocation to a safe place as part of the ICC environmental mitigation effort.

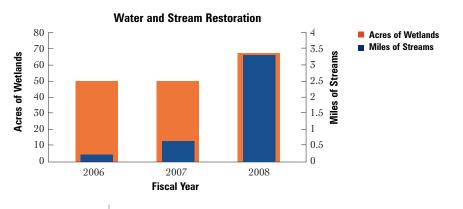


The Intercounty Connector (ICC)'s \$370 million environmental program is both unprecedented in scope and cutting edge in approach – more than 15 percent of the project's estimated cost. The following projects highlight this past year's activity:

- With the help of specially trained turtle-tracking dogs, environmental teams and volunteers found approximately 150 vulnerable eastern box turtles near the westernmost portion of the ICC. The team tagged the turtles by placing small, harmless transponders to the turtle's shells and then moved them to a temporary holding pen safely away from ICC construction. The transponders make it possible for Towson University to conduct an SHA sponsored three-year study on the success rate of the turtles.
- Along MD 97, the archeological team unearthed conclusive evidence of prehistoric human activity dating as far back as the Late Archaic period (3,400-5,000 years ago), which includes a Native American quartz quarry and a tool processing area.
- Along US 29, archaeologists uncovered a virtually undisturbed 19th century African-American homestead site rich in artifacts. Historical research led to the discovery of the homestead's owner, Melinda Jackson, a former slave. Her descendants still live in the Fairland area of Montgomery County.

## Improving Water Quality and Protecting the Chesapeake Bay

In 2000, the Chesapeake Bay Partners agreed to a watershed-wide restoration goal of 25,000 acres. Using a formula based on the amount of wetlands lost in each state, 60 percent of the wetlands lost in the Chesapeake Bay watershed have been in Maryland. Maryland's allocation towards this watershed wide restoration goal is 16,678 acres statewide.



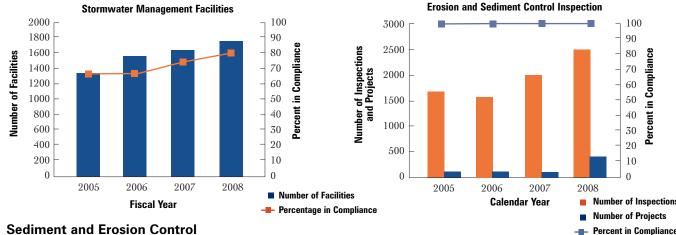
Environmental Stewardship 6 continued

Since many of Maryland's state highways were built prior to the establishment of regulatory controls to protect tidal and non-tidal wetlands and resulted in impacts to both wetlands and streams, SHA contributes to this statewide goal. Progress on this program is subject to availability of funding. A number of new projects were identified in FY 2008 and design is underway. A key strategy to effectively accomplish this objective is outreach to and collaboration with local jurisdictions to ensure the identification of potential restoration sites to maximize watershed benefits.

As of the end of FY 2008, SHA had restored 67.5 acres of wetland and 3.36 miles of stream towards this goal. These efforts are beyond what was necessary to meet mitigation requirements on active projects.

## Storm Water Management Pond Outfall Stabilization

SHA is required to meet federal and state guidelines for the National Pollution Discharge Elimination System (NPDES) on all of its roads (known as NPDES compliance). SHA maintains high standards for NPDES. One hundred percent of all NPDES permit conditions were met in FY 2008 and 80 percent of SHA storm water management facilities are functionally adequate.



All SHA construction projects must adhere to Sediment and Erosion and Sediment Control requirements and guidelines set forth by the Maryland Department of the Environment (MDE). In 1988, a series of agreements (MOU's) between MDE and SHA established guidelines for self-inspection of SHA projects for compliance with Erosion and Sediment Control regulations. The MOU set forth a rating system whereby Quality Assurance Ratings of 'D' and 'F' are considered by MDE to be a "non-compliance" rating. In FY 2008, SHA was 99.7 percent compliant with the three documented violations being corrected within 24 hours.

CHAPTER

**Environmental Stewardship** 

SHA planted 198 acres of wildflowers such as these along highways in Maryland.



## **Landscaping and Highway Beautification**

Highway beautification involves improving the appearance of SHA highway network through landscaping, community planting, wildflowers and reforesting programs. SHA works with communities to implement projects along state highways to enhance entrances to towns and neighborhoods. In 2008:

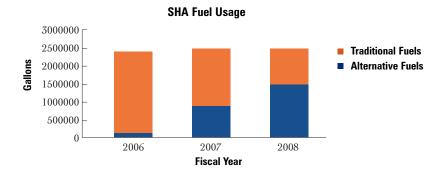
- 198 acres of wildflowers planted; target: 125 acres (FY)
- 10,461 trees planted; target: 5,000 trees (FY)
- 17 partnership planting projects; target: 16 partnership projects (CY).

Extensive landscaping enhancements were completed during FY 2008 along:

- the capital beltway at the Auth Road overpass in Montgomery County
- the Baltimore/Washington Parkway for almost three miles, from the Baltimore Beltway to the Baltimore City line in Anne Arundel County, and
- US 50, Ocean Gateway, from MD 750 to Maryland Avenue in Cambridge, Dorchester County.

## **Environmentally Friendly Fuel Usage**

SHA is committed to reducing fossil fuel dependence and improving air quality through the use of alternative and low emission fuels. The proportion of alternative fuels used annually in operations continues to rise. In FY 2008, total fuel usage was 2.464 million gallons. Of that, 1.520 million gallons, or 61.7 percent, were alternative fuels. Also, through carpooling, reducing work trips and more fuel-efficient cars, SHA used less fuel in our light fleet vehicles in 2008 than ever before. This has been a trend over the past few years.



## **Environmental Stewardship** 6 CHAPTER

## **Scenic Byways and Recreational Trails**

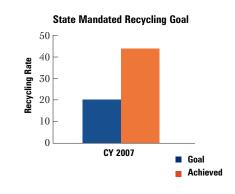
- SHA attended the dedication of the Ma & Pa Trail Extension through Edgeley Grove in Harford County. State and local elected officials were invited to attend by the County.
- The Discovery Channel Online posted an interview with SHA archaeologist Dr. Julie Schablitsky and Administrator Neil Pedersen. In the interview, they discussed Maryland's efforts to preserve its historical and environmental resources.
- SHA and Maryland Highway Safety Office (MHSO) staff attended the celebration of the completed construction of the Gwynns Falls Trail to the I-70 Park & Ride facility on the Baltimore City/County boundary. This new section of trail goes through Historic Franklintown and on to Middle Branch or the Inner Harbor. The Gwynns Falls Trail is now 15 miles long traveling from the Inner Harbor Visitor Center to Middle Branch Park and then northwest along the Gwynns Falls stream valley to the I-70 Park and Ride near Franklintown.
- Fourteen out of SHA's 16 priority level historic bridges had a rating of five or better for all major elements of the bridge.

## Recycling

In calendar year 2007, SHA:

- recycled 4,634 tons of regulated recycling material and 87,672 tons of other material such as anti-freeze, asphalt, concrete, construction and demolition debris, industrial fluids, landscaping debris, scrap metal, sewage sludge and tree stumps,
- maintained a 55.9 percent recycling rate, up from 54.5 percent in calendar year 2006, and
- recycled 450 tons of paper products.

The SHA Headquarters building achieved an overall 2007 recycling rate of 43 percent, exceeding the 20 percent waste reduction goal mandated by the Maryland Recycling Act. This included the recycling of paper, glass, plastic, aluminum cans, fluorescent tubes, toner cartridges and electronics/computer equipment.





## CHAPTER 7 Customer Communications, Service & Satisfaction

Goal: Provide services and products to our customers that meet or exceed their expectations

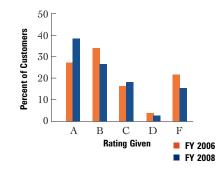
## Highlights of our Accomplishments

An SHA employee sets up a customer outreach booth at a car and truck show in summer, 2008.



- Launched the Customer Care Management System (CCMS) in July 2007, and the number of customers giving SHA an "A" rating for customer responsiveness increased by ten percent, according to the 2008 External Customer Survey.
- Received an overall "B" or better satisfaction rating from seventy eight percent (78 percent) of the respondents in the 2008 External Customer Survey for SHA services.
- Established a stakeholder advisory group to guide SHA's environmental stewardship efforts.

#### **Customer Satisfaction with SHA Response Time**



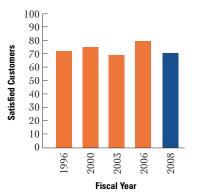
## Overview

For 100 years, excellence in customer service has been one of SHA's top priorities and strengths. SHA recognizes drivers, pedestrians and bicyclists along Maryland highways as our primary customers, striving to provide them with top quality services and a world-class highway system. Our strategy to achieve this relies heavily on customer feedback on all aspects of our performance. This regularly entails focus groups, surveys, stakeholder advisory groups and public meetings.

## **Customer Service Week at SHA**

In 1992, the US Congress declared the first week of October as Customer Service Week, in recognition of the importance of customer service throughout the country. In FY 2008, National Customer Service Week was celebrated from October 1 through 5, during which time SHA distributed guidelines to employees for good customer service and paid tribute to our employees, who work tirelessly behind the scenes and on the front lines to meet our customers' many needs.

### **Overall Customer Satisfaction**



Caption: Satisfied customers are defined as Marylanders who gave SHA an overall rating of "A" or "B."

## **External Customer Survey**

SHA conducted an external customer satisfaction survey of Maryland residents between the ages of 18 and 99 years old with valid Maryland driver's licenses. The purpose of this statewide telephone survey was to gauge general customer satisfaction with and opinions of SHA operations across Maryland.

Respondents consistently identified the following SHA responsibilities as either "important" or "extremely important":

- Maintaining roadways (97 percent)
- Keeping bridges safe (96 percent)
- Plowing, salting and sanding of snow-covered roadways (96 percent)
- Clearing the road after an accident (96 percent)
- Providing roadway features (94 percent)

## Customer Communications, Service & Satisfaction 7 continued

- Managing traffic with lights, passing and turning lanes (93 percent)
- Installing signs that show direction, regulations and information (91 percent).

Overall, SHA performed well. Fifteen percent (15 percent) of the respondents gave SHA an "A" for all the services it provides and 63 percent of the respondents gave SHA a "B." The SHA responsibilities below were those that received the highest grades. Percentages indicate those who gave SHA a grade of "A" or "B."

- Plowing, salting and sanding of snow-covered roadways (84 percent)
- Installing signs that show direction, regulations and information (81 percent)
- Roadway features lights, guardrails, etc. (80 percent).

## **Quotes from our customers:**

- Overall they are doing a good job. It is more than just a job to them.
- They do a good job, these guys up here work (hard), they do a good job
- I think that they are doing a pretty good job considering the number of cars.
- The Maryland State Highway (Administration) employees do a fantastic job with little money
- I feel that the State Highway (Administration) does a great job with what they have to work with.
- Overall, do a good job with the budget that they have.
- Are the best on the east coast
- SHA response time is great when my daughter call for work (as a county employee) or as a citizen; she has visited 50 states and says MD is the best.
- Excellent roads. Beautiful; please keep the trees, etc.
- Keep up the good work
- I appreciate the work that they do.
- I think they do a great job. They do an excellent job when it comes to the snow.
- Come snow time, I think they are the greatest
- Truckers really appreciate Maryland roads
- Keep up the good work especially when the weather is bad
- I think that MD has one of the best highway systems and they do a very good job
- over all they are doing the best they can within their budget
- As a Maryland State Trooper for 20 years I see all aspects of the (State) Highway Administration's services and all get "A" for excellent.

CHAPTER 7 Customer Communications, Service & Satisfaction

The survey also demonstrated SHA's commitment to customer service:

- 65 percent of customers rated SHA "B or better" for response time to their inquiry or request, an improvement from two years ago when this was last surveyed
- 89 percent of customers found the SHA website helpful
- 82 percent are satisfied with the time is takes for SHA to respond in removing snow and 78 percent are satisfied with the time it takes to repair traffic signals.3

Maryland Welcome Centers are a key point of customer contact for SHA.





Caption: Satisfied customers are defined as Marylanders who gave SHA-maintained Rest Areas an overall rating of "A" or "B."

Although the survey was very specific about the types of roads maintained by SHA, it is possible, based on the open-ended comments, that about 10 percent of respondents included local roads and MdTA toll roads in their assessment.

## **SHA's Roadway Rest Areas and Welcome Centers**

Maintaining and operating Maryland Rest Areas and Welcome Centers is an important aspect of customer service and satisfaction for SHA. For most Maryland citizens and visitors, they represent the most common and direct contact with an SHA service, otherwise known as a key moment of truth.

Construction began in May 2008 on two new welcome centers along east and westbound I-70 in Western Maryland. The project was deemed necessary in order to continue to provide quality service and accommodation to an increasing volume of travelers utilizing the facilities. The two new welcome centers are due to open in the fall of 2009.

Also, the US 15 Mason/Dixon Welcome Center was reopened after total reconstruction and is now providing travelers with Maryland Tourism information and public restroom facilities.

## **Customer Care Management System (CCMS)**

The Customer Care Management System (CCMS) was launched in July 2007 after a pilot phase in FY 2007. This new system has streamlined our customer service by automatically delegating incoming service requests to the appropriate work unit. The CCMS created accountability for SHA by documenting our work performance and helping to ensure that customer concerns are resolved in an acceptable manner. After little more than a month, CCMS helped SHA log and respond to more than 4,500 calls statewide, consisting of informational calls and service requests.

## **Stakeholder Advisory Committees**

A brand new Environmental Stakeholder Advisory Committee was formed in FY 2008, with the first meeting held on January 23. The Committee's role is to help determine customer priorities, expectations and level of satisfaction with SHA's efforts to act in an environmentally responsible manner on projects and in services. SHA now has a total of three such committees: an Americans with Disabilities Act (ADA), a Disadvantaged Business Enterprise (DBE) and an environmental advisory committee.

Customer Communications, Service & Satisfaction 7 continued

## **Partner Collaboration**

SHA must work effectively with our partners and other stakeholders if we are to consistently deliver high quality products and services to the State of Maryland and its citizens. Therefore, beginning in FY 2008, SHA began compiling satisfaction ratings from industry stakeholders such as material suppliers. In FY 2008, industry stakeholders were asked to rate their satisfaction with SHA on a scale of 1-4, with the following results:

- The Maryland Highway Contractor's Association (MHCA) 2.95
- Members of the Asphalt industry 3.73
- Members of the Concrete industry 3.38
- Members of the Aggregate industry 3.42.

## **Public Involvement in SHA Projects**

SHA holds regular public meetings and project focus group meetings to gather input and determine how the project can best serve the needs of the surrounding community.

The Intercounty Connector (ICC) has been a shining example of public outreach efforts throughout the life of a project. In FY 2008, the ICC Project Team used a variety of different methods to inform neighbors about their work, such as community meetings, corridor-wide project newsletters, project fliers, and the project website. The team identified Community Liaisons to coordinate with the public by contract segment. In FY 2008, the project Community Liaison for each segment served as the single source of information and interaction for interested parties. The Community Liaisons possess a thorough understanding of the area associated with each contract, including the issues, individuals, and communities. They scheduled and attended community meetings, worked with SHA's right-of-way teams, worked with other technical teams, such as the staff that will be coordinating the approval of the noise barriers, and coordinated with the contractor's team. In summary, the Community Liaison led the outreach and issue resolution efforts by coordinating with all appropriate parties.

Other public outreach conducted by SHA in FY 2008 included:

- 12 Project Planning Meetings
- 17 Bridge Project Meetings
- Six American with Disabilities Act (ADA) Public Involvement Meetings
- 12 Highway Design/District Project Meetings.



CHAPTER | 8 | Excellence in Our People and Our Projects

## **Team Recognitions**



SHA teams, individuals, and projects were recognized with a number of awards in FY 2008, including:

## **American Association of State Highway and Transportation** Officials (AASHTO)

District 7 Project Development Engineering Systems Team - Silver (Pathfinder Level) Team Excellence Award, for automating the filing, copying, and distribution of construction plans, thereby realizing savings of:

- 93 percent of the cost of these functions per advertised project, or \$42,000 per year (based on 10 projects),
- 80 percent of the time needed to fill requests for copies of plans, or 120 person hours per year, and
- 220~ cubic feet of filing space,

while preserving the ability of district personnel to access plans for any job built in the district, even if the SHA-wide computer system goes down or hard-copy archives become inaccessible.

Office of Materials Technology Hot Mix Asphalt Field Quality Assurance Team - Silver (Pathfinder Level) Team Excellence Award, for working with the paving industry and other stakeholders to:

- · raise awareness of problems with the application of tack coat (an emulsion that secures an essential bond between pavement surfaces),
- identify malfunctioning equipment more quickly,
- develop policies that support best practices for the proper quality, quantity, and application of tack coat,
- increase the number of tack-coat samples which meet contract specifications, and
- support SHA's business plan.

Office of Highway Development/Office of Policy and Research ADA Steering Team - President's Transportation Award for Planning for developing a program that allows ADA compliance to be measured, tracked, and reported in a reliable and consistent manner and for developing

- a spatial database, including a baseline inventory of sidewalks,
- a comprehensive ADA training program for SHA employees, consultants, and contractors, and the companion publication, Accessibility Policy & Guidelines for Pedestrian Facilities along State Highways & Field Guide for Construction of Pedestrian Facilities along State Highways,

SHA FY 2008 ANNUAL REPORT

## Excellence in Our People and Our Projects 8

- a public outreach program with formal complaint and hearings
- a dedicated funding source to protect ADA goals from budgetary fluctuations.

## National Partnership for Highway Quality (NPHQ)

**SHA ADA Advisory Committee** 

2008 Making A Difference – Breaking the Mold Award for Excellence – for the ADA Compliance Program, which includes public outreach, awareness and technical training, project development, construction, installation and operations of Accessible Pedestrian Signal devices, and sidewalks and ramps on State highways throughout Maryland.

## **American Concrete Institute, Maryland Chapter**

**District 6 Construction** 

2007 Excellence in Concrete Award, for replacement of the bridge over Neff Run in Midland.

## **Federal Highway Administration Award**

Office of Real Estate and Office of the Attorney General Excellence in Right of Way Stewardship Award, for the forward-thinking teamwork that allowed all acquisition activities for the Intercounty Connector to be handled in-house.

## **Governor's Highway Safety Association**

State of Maryland, Commonwealth of Pennsylvania, Commonwealth of Virginia and District of Columbia

Peter K. O'Rourke Special Achievement Award, for the Smooth Operator Program and its focus on enforcement of impaired driving, aggressive driving, seatbelt and other traffic safety laws

## International Right of Way Association (IRWA) Potomac Chapter 14

**State Highway Administration** 

Designation of November 15 as SHA Day to commemorate the 100th Anniversary of the State Roads Commission.

## Korean War Veterans of America and Senator Kathy Klausmeier

District Four and the Offices of Environmental Design, Highway Development, Real Estate, Planning and Preliminary Engineering, and Traffic and Safety, for their efforts to design and construct new signs dedicating MD 43 to the Korean War and Korea Service veterans.

CHAPTER | 8 | Excellence in Our People and Our Projects

## **Individual Recognitions**

- Carol A. Ebright, Archeologist, Office of Planning and Preliminary Engineering - 2007 William B. Marye Award, Archeological Society of Maryland for outstanding contributions to Maryland archeology.
- Sam Hall, Safety Management Consultant, Office of the Deputy Administrator/Chief Engineer for Operations—inducted as President of the Public Employees Safety Association (PESA) of Maryland for a two-year term beginning in July 2007.
- Jawad Paracha, Office of Traffic and Safety-Young Engineer of the Year, Washington Section of the Institute of Transportation Engineers (ITE), for his continuing work in Maryland's Work Zone Safety program and numerous presentations at the National ITE and TRB conferences.
- Melinda Peters, Director, Office of the ICC-2008 Civil Engineer of the Year, American Society of Civil Engineers (ASCE) Maryland Section
- Neil J. Pedersen, Administrator -
- 2007 Thomas H. MacDonald Memorial Award, AASHTO, for exceptional contributions to the art and science of highway engineering
- Green Highways Partnership, for exemplary leadership and organizational investments and demonstrations in promoting the green highway approach
- Douglas R. Rose, Deputy Administrator/Chief Engineer for Operations (retired) - Alfred E. Johnson Achievement Award, AASHTO, for his national involvement, leadership of the Maryland Quality Initiative, and his commitment to partnering with the private sector to deliver projects that exceed customers' expectations.

SHA FY 2008 ANNUAL REPORT

## **Project Recognitions**

## **Design-Build Institute of America**

Maryland State Highway Administration 2008 Transportation Owner of the Year Award, for SHA's significant contributions in advancing design-build awareness and understanding.

## **Woodrow Wilson Bridge Project Awards** AASHTO, American Automobile Association, U.S. Chamber of Commerce

State of Maryland, Commonwealth of Virginia, District of Columbia America's Transportation Award, National Grand Prize, for unclogging one of the worst bottlenecks on the East Coast through the construction of a modern, 12-lane bridge that separates local and through traffic, has room for future mass transit, and ties communities together with hiker/biker trails.

State of Maryland, Commonwealth of Virginia, District of Columbia America's Transportation Award, National Large Project - Innovative Management, for pioneering new policies and procedures for construction management and financial planning that allowed construction of the bridge and four interchanges on the Capital Beltway to remain on time and to

## **American Road & Transportation Builders Association/Transportation Development Foundation**

2008 Globe Award - Environmental Excellence, for construction of artificial fish reefs from bridge-demolition debris.

## **American Segmental Bridge Institute**

keep cost escalation at 1.3 percent since 2001.

ASBI Bridge Award of Excellence for excellence in design and construction.

## **American Society of Civil Engineers**

OPAL Trophy - 2008 Outstanding Civil Engineering Achievement Award for program-wide Achievement.

## **Federal Highway Administration**

2007 Exemplary Ecosystems Initiative Award for environmental management and mitigation.

## **International Road Federation**

2007 Global Road Achievement Award for Program Management for demonstrating that effective program management can keep a \$2.4 billion mega-project, one of the largest in the country, on schedule and on budget while protecting the natural environment and respecting neighboring communities.

of the award winning Woodrow Wilson Bridge as traffic flows smoothly along the first span.



Construction takes place on the second span



## CHAPTER | 8 | Excellence in Our People and Our Projects

## Maryland Legislative Sportsmen's Foundation

Hero of the Chesapeake Bay Award for WWB's coordination with the Maryland Artificial Reef Initiative to use debris from the old bridge span to create new reefs in the Bay.

## **Maryland Quality Initiative**

Quality Award for MA-2/3 contract, recognizing Al Houser and Paul Gudelski.

## Rowe Boulevard (MD 70) Bridge Replacement AASHTO, American Automobile Association, U.S. Chamber of Commerce

Maryland State Highway Administration

America's Transportation Award, NASTO Region, Medium Project - On

Time, for demonstrating specific measurement, process management and quality assurance methods used to deliver a quality product and demonstrate effective schedule management from conception to completion. This award also recognizes involvement and interaction with the surrounding community and illustrates the degree to which traffic movement was improved for customers/users.

A crew performs night work along York Road in Baltimore County.



## York Road (MD 45) Revitalization Project AASHTO, American Automobile Association, U.S. Chamber of Commerce

Maryland Department of Transportation

America's Transportation Award, NASTO Region, Small Project -Innovative Management, for pulling together a design task force of consultants, state and local government representatives, community liaisons, and the business community to develop a context-sensitive design for improvements along a 1.6-mile stretch of York Road in Baltimore City and Baltimore County.



# STATE HIGHWAY ADMINISTRATION ANNUAL REPORT | 08

Martin O'Malley Governor Anthony G. Brown Lt. Governor John D. Porcari MDOT Secretary Neil J. Pedersen Administrator

Maryland Department of Transportation

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